CLAIM AMENDMENTS

Claims 1 - 8 (cancelled).

9. (currently amended) An apparatus for liberating oxygen isotopes from an oxygen-containing solids comprising:

a vacuum-tight quartz glass housing;

a graphite crucible ~~and~~ in said housing an induction heating source in said housing ~~capable of~~ heating an oxygen-containing solid in said crucible to a temperature at which oxygen in said solids react with carbon of said crucible to form CO or CO_2; and

a vacuum pump connected to said housing.

Claim 10 (cancelled).

11. (Previously presented) The apparatus according to claim 9 which comprises means for capturing gaseous CO or CO_2 arising from the induction heating of the solids in said crucible.

12. (currently amended) The apparatus according to claim ~~10~~ 9 wherein the housing of quartz glass is provided with means for cooling the housing.

13. (currently amended) The apparatus according to claim ~~10~~ 9 wherein the housing of quartz glass can be opened ~~on opposite sides~~ to replace the solid and the graphite crucible containing the solid.

14. (currently amended) The apparatus according to claim~~s~~ 13 wherein the graphite crucible is elongated ~~whereby at~~ and has an upper end and a lower end said lower end being provided with a cavity ~~is provided which can receive~~ a rod with which the graphite cuvette can be mounted in~~,~~ the housing.

Claims 15 to 17, (cancelled).

18. (currently amended) An apparatus for liberating oxygen isotopes from a solid, comprising:

an elongated quartz-glass evacuatable vacuum-tight housing connectable to a vacuum pump and having an outlet;

an elongated graphite crucible having a cavity at one end and a bore at an opposite end, said cavity receiving a sample of said solid;

a rod received in said bore for inserting said crucible into said housing and positioning said cuvette in said housing;

a cooling jacket surrounding said housing and provided with an inlet and an outlet for passing a cooling liquid through said jacket;

an induction coil surrounding said housing for induction heating of said crucible and said solid to gradually raise a temperature of said solid to initially drive impurities therefrom and then decompose said solid to liberate oxygen therefrom whereby said oxygen combines with graphite carbon to form a gas comprising carbon oxides; and

a duct for admitting a carrier gas to said housing whereby said gas containing ~~oxygen liberated from said solid~~ carbon oxides is entrained in said carrier gas through said outlet to a spectrometer for isotope analysis.